



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/584,323

06/26/2006

Jurgen Stauder

PF040008

1975

24498

7590

12/22/2008

Joseph J. Laks

Thomson Licensing LLC

2 Independence Way, Patent Operations

PO Box 5312

PRINCETON, NJ 08543

EXAMINER

PATEL, NIRAV G

ART UNIT

PAPER NUMBER

4182

MAIL DATE

DELIVERY MODE

12/22/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/584,323	Applicant(s) STAUDER ET AL.	
	Examiner Nirav G. Patel	Art Unit 4182	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/26/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

It would be of great assistance to the Office if all incoming papers pertaining to a filed application carried the following items:

1. Application number (checked for accuracy, including series code and serial no.).
2. Group art unit number (copied from most recent Office communication).
3. Filing date.
4. Name of the examiner who prepared the most recent Office action.
5. Title of invention.
6. Confirmation number (See MPEP § 503).

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

2. The information disclosure statement filed June 26, 2006 complies with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609. It has been placed in the application file, and the information referred to therein has been considered as to the merits.

Specification

3. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that

Art Unit: 4182

the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The abstract contains "said" multiple times and should be avoided.

Claim Objections

4. Claim 6 is objected to because of the following informalities: "centred" appears to be a misspelling of "centered". Appropriate correction is required.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Onda (U.S. Patent Number 5,077,811).

1) Regarding Claim 1, Onda discloses a method for detecting the orientation of a set of images, said set of images containing subset of images, each image in a subset of images representing at least one similar object wherein it comprises the steps of:

choosing a reference image in each subset of image from among the set of images (Col. 3, Lines 1-3: a second predetermined number of reference characters are provided for comparison with the character images)

detecting the orientation of the images of each subset as a function of the orientation of the said reference image (Col. 4, Lines 58 - 66: the image signals for the first scanned character is compared with all of the reference characters. Matching data obtained as the result of the comparison is then stored The procedure is carried out for the next scanned character and so on until all of the characters are compared with the reference characters).

2) Regarding Claim 9, Onda discloses a device for detecting the orientation of a set of images (Claim 1), said set of images containing subset of images, each image in a subset of images representing at least one similar object wherein it comprises the steps of:

choosing a reference image in each subset of image from among the set of images (Col. 3, Lines 1-3: a second predetermined number of reference characters are provided for comparison with the character images),

detecting the orientation of the images of each subset as a function of the orientation of the said reference image (Col. 4, Lines 58 - 66: the image signals for the first scanned character is compared with all of the reference characters. Matching data

Art Unit: 4182

obtained as the result of the comparison is then stored The procedure is carried out for the next scanned character and so on until all of the characters are compared with the reference characters).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 2 through 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Onda in view of Chiba et al. (U.S. Patent Number 6,744,537, "Chiba").

1) Regarding Claim 2, Onda fails to disclose the limitations of claim 2. However Chiba discloses a method comprising a step of calculating the visual distance between the reference image and the said image (Col. 80, Lines 24-26: computing for distances between an input character and candidate characters in the recognition directory is executed).

Incorporating the teachings of Chiba to Onda's method would allow for a way to quantify how close a reference image is to an inputted image. Therefore it would have been obvious to one of ordinary skill at the time of the invention to apply the teachings of Chiba to Onda's methods.

2) Regarding Claim 3, Onda fails to disclose the limitations of claim 3. However Chiba discloses a method comprising a step of calculating the visual distance between the said image and the reference image (see analysis of claim 2 above),

the said image and the reference image having undergone a rotation of 90 degrees (Col. 80, Lines : the image direction correcting section checks the rotation angle or mirroring of an image having the highest recognition certainty or highest probability of accurate recognition among the images BG1 to image BG8 shown in Figure 50. The image with the highest certainty or probability (the closest distance between the input and candidate characters as outlined in claim 2 above is given a higher probability/certainty) is selected as the most correctly orientated image. Figure 50, BG 3 is rotated 90 degrees),

the said image and the reference image having undergone a rotation of 180 degrees (Figure 50, BG 8 is rotated 180 degrees),

the said image and the reference image having undergone a rotation of 270 degrees (Figure 50, BG 2 is rotated 270 degrees (-90 or counterclockwise)).

Incorporating the teachings of Chiba to Onda's method would allow for a way to quantify how close a reference image is to an inputted image when the images are rotated. Different values of the distance between the images are given when the image is rotated a certain way and the rotation which yields the smallest distance would indicate that the image is in the same orientation as the reference. Therefore it would have been obvious to one of ordinary skill at the time of the invention to apply the teachings of Chiba to Onda's methods.

3) Regarding Claim 4, Onda fails to disclose the limitations of claim 4. However Chiba discloses a method comprising a step of determining a sub image in the reference image and a sub image in the said image, the calculation of the visual distance between the said image and the reference image being performed on the respective sub images (Figure 48: Original image is shown as a full page containing an subimage, BG 5. The rotation and distance is performed on the subimages as outlined in analysis of Claims 2 &3 above (Also seen in Figure 50)).

Incorporating the teachings of Chiba to Onda's method would allow for the necessary distance calculation as described above to be conducted on the subimage which is where the image data is contained. Therefore it would have been obvious to one of ordinary skill at the time of the invention to apply the teachings of Chiba to Onda's methods.

4) Regarding Claim 5, Onda fails to disclose the limitations of claim 5. However Chiba discloses a method wherein the said sub images have the same relative size with respect to the image in which each is positioned (Figures 48 & 50: Figures or original and subimage are same in relative size. Figure 50, the subimages are same as well).

Incorporating the teachings of Chiba to Onda's method would allow images of the same size to be compared to determine the orientation. If the images are not the same relative size, comparison would be made to irrelevant portions of the images yielding an incorrect orientation determination. Therefore it would have been obvious to one of ordinary skill at the time of the invention to apply the teachings of Chiba to Onda's methods.

5) Regarding Claim 6, Onda fails to disclose the limitations of claim 6. However Chiba discloses a method wherein the said sub images are centered with respect to the image in which they are positioned (Figure 48: The subimage "F" in BG 1 is centered with respect to the image in which it is positioned).

Incorporating the teachings of Chiba to Onda's method would allow for a more precise determination of orientation due to the fact that the images would be in the same relative location (centered) as a reference image which are the same relative size (from claim 5). Therefore it would have been obvious to one of ordinary skill at the time of the invention to apply the teachings of Chiba to Onda's methods.

6) Regarding Claim 7, Onda fails to disclose the limitations of claim 7. However Chiba discloses a method wherein the said sub images are positioned in such a way

Art Unit: 4182

that the visual distance between the said sub images are minimal (Figure 47:

Subimages are positioned as to minimize the distances between set of subimages).

Incorporating the teachings of Chiba to Onda's method would allow for a more precise determination of the orientation of an image. If the distance between the images is not minimal, inaccurate determinations could be made when considering that an increase in distance between an image which is the correct reference could be interpreted as incorrect compared to an incorrect reference that shortens the distance determined by moving the image itself closer to the sample image. Therefore it would have been obvious to one of ordinary skill at the time of the invention to apply the teachings of Chiba to Onda's methods.

7) Regarding Claim 8, Onda fails to disclose the limitations of claim 8. However Chiba discloses a method wherein it furthermore comprises a step of selecting the said reference image as a function of the distance between this reference image and the target image (Col. 80, Lines 28-30: a candidate character (reference image) having the minimum distance is recognized as a final candidate (target image) for the inputted character.

Incorporating the teachings of Chiba to Onda's method would allow for a better selection of a reference image. Selecting an image which is a function of the distance between both images can allow for a better reference to be selected, which would essentially be closer due to the fact that if it is further apart, it may be concluded after distance measurements are made that the image is not in the same orientation as the reference even though in reality it may. Therefore it would have been obvious to one of

Art Unit: 4182

ordinary skill at the time of the invention to apply the teachings of Chiba to Onda's methods.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nirav G. Patel whose telephone number is (571)270-5812. The examiner can normally be reached on Monday - Friday 8 am - 5 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Benny Tieu can be reached on 571-272-7490. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Nirav G. Patel/
Examiner, Art Unit 4182

Application/Control Number: 10/584,323
Art Unit: 4182

Page 11

/Benny Q Tieu/
Supervisory Patent Examiner, Art Unit 4182